

What is claimed is:

1. A flat gasket for a reciprocating engine or a driven machine including at least one metal sheet 0.05 to 0.5 mm thick which is provided with a coating of an elastomer film at least on the sides facing outward in at least one sealing area and has an edge area, formed by the outer contour and/or at least one cylinder bore and/or a water and/or oil passage in the cylinder head, adjacent to at least one peripheral self-contained cavity, wherein the cavity (2) is filled completely with a hydraulic medium (6).

2. The flat gasket for a reciprocating engine or a driven machine according to Claim 1, wherein the metal sheet (1) is flanged back onto itself in the edge area, forming the cavity (2), and is joined to itself adjacent to the cavity.

3. The flat gasket for a reciprocating engine or a driven machine according to Claim 1, wherein the cavity (2) is enclosed by at least one bead (3) of the metal sheet (1) and a second metal sheet (4) bridging the bead, which are permanently jointed together adjacent to the bead.

4. The flat gasket for a reciprocating engine or a driven machine according to Claim 3, wherein the metal sheet (1) and the second metal sheet (4) are joined in a fluid-tight manner.

5. The flat gasket for a reciprocating engine or a driven machine according to Claim 3, wherein in the area of the bead (3) the second metal sheet (4) has a second bead (5).

6. The flat gasket for a reciprocating engine or a driven

machine according to Claim 5,
wherein the second bead (5) has a different design from that
of the first bead (3).

7. The flat gasket for a reciprocating engine or a driven
machine according to Claim 5 or 6,
wherein the second bead (5) has a profile with a smaller cross
section than the first bead (3).

8. The flat gasket for a reciprocating engine or a driven
machine according to one of Claims 3 through 7,
wherein the second metal sheet (4) has a second bead (5) in
mirror image to the bead (3) of the first metal sheet (1).

9. The flat gasket for a reciprocating engine or a driven
machine according to one of the preceding claims,
wherein a third metal sheet (8) is arranged between the first
metal sheet (1) and the second metal sheet (4); and the third
metal sheet is included in the connection between the first
and second metal sheets; and the cavities (2) on both sides of
the third metal sheet are in hydraulic connection (16) with
one another.

10. The flat gasket for a reciprocating engine or a driven
machine according to Claim 9,
wherein the third metal sheet (8) in the area of the first and
second beads has a third bead (15) having a differently shaped
profile.

11. The flat gasket for a reciprocating engine or a driven
machine according to Claim 10,
wherein the first, second and/or third beads are subdivided
into at least two partial beads (12).

12. A cylinder head gasket according to one of Claims 1
through 9,
wherein at least two cylinder head gaskets are included

according to at least one of Claims 1 through 11.

13. The flat gasket for a reciprocating engine or a driven machine according to one of the preceding claims, wherein each cavity (2) is filled with a substance that is liquid at least under operating conditions.

14. The flat gasket for a reciprocating engine or a driven machine according to Claim 13, wherein the substance is formed by a solder.

15. The flat gasket for a reciprocating engine or a driven machine according to one of Claims 1 through 12, wherein the cavity is filled with a polymer material that is plastically and/or elastically deformable at least under operating conditions.

16. The flat gasket for a reciprocating engine or a driven machine according to Claim 15, wherein the polymer material is formed by a thermoplastic, rubber or silicone.

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